

REMARKS

Claim Rejections – 35 USC § 102

Claims 1-4, 7, 8, 11-13, 16-20, 23 and 24 were rejected under 35 U.S.C. § 102(b) as being anticipated by Dietz et al. Applicant has amended independent claims 1, 11, and 17 and believes the claims as now presented patentably distinguish the present invention from the prior art. Claims 1 and 17 have been amended to state that the inert gas source is coupled to the cooling system. Dietz does not disclose a device that is physically coupled to a cooling system. The present invention allows for better control and regulation of the engine that was not possible with the prior art. Claims 3-4, 7, 8, and 18-20, 23, and 24 depend from claims 1 and 17, and are believed to contain patentable subject matter, as well.

In claim 11, the step of “connecting a source of pressurized inert gas to an intake port formed in said engine” has been amended to “coupling a source of pressurized inert gas to an intake port formed in said engine.” As stated above, Dietz does not provide a system that allows for the inert gas source to be physically connected (i.e. coupled) to the cooling system. Claim 11, along with claims 12-13 and 16, which depend from claim 11, are believed to contain patentable subject matter.

Other Prior Art

Applicant has also been made aware of Clark, II (U.S. Pat. No. 6,073,666) and Viken (U.S. Pat. No. 5,318,080). Clark and Viken refer to systems for changing fluids within a transmission. More specifically, the references relate to removing and storing used transmission fluid and replacing the used fluid with new fluid. Old fluids are drained from the systems and replaced with new fluids. Such systems operate differently from the present invention and are not adaptable for the present invention. That is, transmissions operate differently from a cooling system for a combustion engines. Transmissions are used to transfer power from an engine to a drive system. Transmissions are separate from engines. A cooling system is used to keep an engine cool. A cooling system is part of an engine. Viken and Clark do not address similar problems as the present invention, and should not be used to suggest the present invention is obvious.

The present system is intended to purge corrosive materials from a cooling system for a combustion engine. The system does not actively remove the cooling fluid from the

system, but introduces inert gas to the system to prevent corrosive fluids from damaging the cooling system. The apparatuses of Clark and Viken would be inoperable if fluid originally inside of the system was not drained from the system, as there would be no space for the introduction of new fluid. Similarly, the present system is not intended to drain the cooling fluid within cooling system and is not used for introducing new cooling fluids into the cooling system, as would be inferred from Clark and Viken. Applicant does not believe the systems of Clark and Viken, relating to transmissions, are relevant to the present invention, as they discuss different mechanical systems than presented in the current application.

Amendments to the Specification

Applicant would like to further correct some informalities of the terminology and nomenclature of the present application. Specifically, the Applicant would like to clarify the language describing the inert gases used within the system. The Applicant previously had referred to the atomic weight of the specific gases. As noted in the application, the preferred inert gas has an atomic weight less than that of oxygen and water vapor, but the system could also employ inert gases that are heavier than oxygen. When referring to the atomic weight of the inert gases atomic weight, the Applicant is referring to the molecular weight of the gases, since the weights of compounds such as air would be referred to as molecular weights and not atomic weights. Similarly, in a system such as the engine and cooling system as described in the application, it is understood that the molecular weights of the gases directly refer to the densities of the gases. That is, for example, the preferred inert gas should have a density that is less than the density of the corrosion inducing material (or a greater density if introduced from the bottom of the system) and not necessarily have an atomic weight that is less (or greater) than the corrosion inducing material. These changes are made only to make sure proper nomenclature is used in the specification and not to change or alter the scope or the principles of the invention. No new matter has been added to the application with these changes. Applicant respectfully requests that the amendments to the specification be allowed.

Allowable Subject Matter


Allowance of claims 25-27 is noted and appreciated.

The Examiner had indicated that claims 5, 6, 9, 10, 14, 15, 21, and 22 would be allowable if rewritten in independent form including the elements of the intervening claim. Claims 5, 9, 14, and 21 have been rewritten in independent form including the elements of the intervening claims. Claims 6, 10, 15, and 22 depend from the above amended and are believed to contain patentable subject matter, as well. Allowance of claims 5, 6, 9, 10, 14, 15, 21, and 22 is respectfully requested.

Applicant has added new claims 28-30 to the application, which specifically claim the inert gas used in the system as being selected from the group consisting of helium and nitrogen. The claims are also believed to be in condition for allowance, as they are generally in scope with the rest of the claims in the application, except for the distinction of the stated inert gases. Allowance of claims 28-30 is respectfully requested.

Original claims 2-4, 6-8, 10, 12, 13, 15, 16, 18-20, and 22-24, amended claims 1, 5, 9, 11, 14, 17, and 21, previously presented claims 25-27, and new claims 28-30, along with the currently amended specification, are respectfully requested to be entered and passed into allowance. No new matter has been added through these amendments.

Respectfully Submitted,

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